

CLAIMS AMENDMENTS

Please replace the claims of invention examined 6/14/2005 with the following claims:

1. (Currently amended) A head assembly for a RPV reactor pressure vessel, comprising:
 - a RPV reactor pressure vessel closure head;
 - a seismic support platform spaced from the closure head;
 - an array of CRDMs control rod drive mechanisms, each CRDM control rod drive mechanism including an electro-magnetic coil stack assembly and having a lower end supported by the RPV reactor pressure vessel and an upper end supported by the seismic support platform;
 - a lower shroud surrounding the electro-magnetic coil stack assemblies and having an upper end spaced from the seismic support platform in air flow communication with the atmosphere around the CRDMs control rod drive mechanisms;
 - a plurality of internal ducts disposed between control rod drive mechanisms within the array of CRDMs control rod drive mechanisms, each duct extending from a lower end disposed below the upper end of the lower shroud and in air flow communication with the lower shroud to an upper end;
 - an upper plenum disposed above the seismic support platform in air flow communication with the internal ducts;
 - a missile shield assembly disposed within the upper plenum;
 - a plurality of fan assemblies disposed on the upper plenum in air flow communication with the upper plenum; and
 - lift legs connected with the RPV reactor pressure vessel closure head and supporting the seismic support platform, the upper plenum and the missile shield assembly for removal of the head assembly as an integral assembly.

2. (Currently amended) ~~The head assembly of Claim 1~~ A head assembly for a reactor pressure vessel, comprising:

a reactor pressure vessel closure head;

a seismic support platform spaced from the closure head;

an array of control rod drive mechanisms, each control rod drive mechanism including an electro-magnetic coil stack assembly and having a lower end supported by the reactor pressure vessel and an upper end supported by the seismic support platform;

a lower shroud surrounding the electro-magnetic coil stack assemblies and having an upper end spaced from the seismic support platform in air flow communication with the atmosphere around the control rod drive mechanisms;

a plurality of internal ducts disposed within the array of control rod drive mechanisms, each duct extending from a lower end disposed in air flow communication with the lower shroud to an upper end, wherein the internal ducts have support springs;

an upper plenum disposed above the seismic support platform in air flow communication with the internal ducts;

a missile shield assembly disposed within the upper plenum;

a plurality of fan assemblies disposed on the upper plenum in air flow communication with the upper plenum; and

lift legs connected with the reactor pressure vessel closure head and supporting the seismic support platform, the upper plenum and the missile shield assembly for removal of the head assembly as an integral assembly.

3. (Original) The head assembly of Claim 2, wherein the internal ducts are supported by the springs against the coil stack assemblies.

4. (Original) The head assembly of Claim 1, wherein the internal ducts are seismically supported by the seismic support platform.

5. (Original) ~~The head assembly of Claim 4~~ A head assembly for a reactor pressure vessel, comprising:

a reactor pressure vessel closure head;

a seismic support platform spaced from the closure head;

an array of control rod drive mechanisms, each control rod drive mechanism including an electro-magnetic coil stack assembly and having a lower end supported by the reactor pressure vessel and an upper end supported by the seismic support platform;

a lower shroud surrounding the electro-magnetic coil stack assemblies and having an upper end spaced from the seismic support platform in air flow communication with the atmosphere around the control rod drive mechanisms;

a plurality of internal ducts disposed within the array of control rod drive mechanisms, each duct extending from a lower end disposed in air flow communication with the lower shroud to an upper end, wherein the internal ducts are seismically supported by the seismic support platform and have internal plates in the section of the ducts disposed in the seismic support platform;

an upper plenum disposed above the seismic support platform in air flow communication with the internal ducts;

a missile shield assembly disposed within the upper plenum;

a plurality of fan assemblies disposed on the upper plenum in air flow communication with the upper plenum; and

lift legs connected with the reactor pressure vessel closure head and supporting the seismic support platform, the upper plenum and the missile shield assembly for removal of the head assembly as an integral assembly.

6. (Original) The head assembly of Claim 1, wherein the internal ducts are supported by the upper plenum.

7. (Withdrawn) The head assembly of Claim 1, wherein the internal ducts and the upper plenum are in air flow communication through a ring header duct disposed below the seismic support platform in air flow communication with the internal ducts and at least one cross-over duct in air flow communication with the ring header duct and the upper air plenum.

8. (Withdrawn) The head assembly of Claim 7, wherein the internal ducts are supported by the ring header duct.

9. (Currently amended) The head assembly of Claim 1, wherein each lift leg comprises a lower leg member detachably connected with an upper leg member, and the lower leg member is connected with the ~~RPV~~ reactor pressure vessel closure head and supports the seismic support platform, and the upper leg member supports the upper plenum and the missile shield assembly;

whereby, when the upper leg member is detached from the lower leg member, the upper plenum and the fan assembly disposed on the upper plenum and the missile shield assembly may be removed ~~as a subassembly~~ from above the ~~RPV~~ reactor pressure vessel separately from the reactor pressure vessel closure head; and

whereby, when the upper leg member is attached to the lower leg member, the ~~head assembly upper plenum, fan assembly, the missile shield and the reactor pressure vessel closure head~~ may be removed as an integral assembly from the reactor pressure vessel.